

Advanced Imaging LADAR

U T A H S T A T E U N I V E R S I T Y

CENTER

The Center for Advanced Imaging LADAR (CAIL) focuses on commercializing three dimensional camera products and software based on laser radar and digital camera technology. CAIL's technology has already been used in Japan, and various states in the U.S. In addition to generating interest from NASA for space applications, the technology may revolutionize architecture, engineering, motion pictures, gaming and many other industries.

TECHNOLOGY

CAIL's core technology is the 3D Texel camera, which uniquely combines three-dimensional Laser Detection and Ranging (3D LADAR) technology with two-dimensional digital photography to form a complex 3D image in the same time it takes to snap a photo. 3D LADAR measures the precise distance to, and shape of, objects or terrain while 2D imagery takes a normal digital photograph. The Texel camera merges the information in real-time and, when multiple images are combined, an entire 3D scene is formed that can be viewed from any position instantly.

This year, two new generations of tripod based cameras were developed for a Utah company, IntelliSum. In addition, a prototype handheld flash-type lidar camera was developed.

ACCOMPLISHMENTS

CAIL has, in the past year, its third as a Center, successfully commercialized the tripod-based Texel camera for IntelliSum (formerly RapidMapper) which is currently in use for mapping and engineering services. Work is continuing on a handheld model, which is half-way to completion.

Markets being investigated include architectural and construction 3D modeling of building interiors, software gaming, movies and electronic entertainment.

The technology is garnering significant interest from military organizations. In January, CAIL was awarded several Federal contracts to develop airborne versions of their technology.

THINK TANK

What if there was...



A way to take a
3D photograph
and rotate the
image
immediately,
without ever
leaving the field?

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